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20. (NEW) A closing device for a valve (14), specifically a drainage valve, for a container, said closing device (16) moving between a position that opens the valve and a position that closes the valve (14), and comprising an interior housing (30) designed to hold a probe or a detector (27) of a measurement or detection apparatus, wherein the closing device (16) has an opening (38) located in a portion of the closing device that is accessible when the device is in the operating position inside the valve, offering access to its interior housing and allowing the probe or the detector (27) to be inserted or removed without any need to previously disassemble the valve or the closing device, and without altering the valve seal. 112

21. (NEW) The closing device according to claim 20, wherein the valve (14) is a flap valve.

22. (NEW) The closing device according to claim 20, wherein the valve (14) is a drainage valve.

23. (NEW) The closing device according to claim 20, wherein the valve (14) comprises a shaft (17) and a blocking head (18).

24. (NEW) The closing device according to claim 20, wherein the valve (14) is displaced between open and closed positions by the movement of a piston (21) controlled by an activator (23).

25. (NEW) The closing device according to claim 24, wherein a shaft (17) and a shaft of the piston (21) of the activator (23) are connected by means of a coupling element (24).

26. (NEW) The closing device according to claim 25, wherein the coupling (24) has a generally cylindrical lower portion (25) which extends into a generally conical upper portion (26).

27. (NEW) The closing device according to claim 25, wherein the opening (38) offering access to the interior housing (30) is formed near the coupling (24).

28. (NEW) The closing device according to claim 20, wherein the opening (38) may be temporarily blocked when not in use.

29. (NEW) The closing device according to claim 28, wherein the opening (38) is temporarily blocked by a door (39).

30. (NEW) The closing device according to claim 29, wherein a connector block (31) is connected to the lateral door (39).

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31. (NEW) The closing device according to claim 20, wherein the housing (30) comprises a support element (36) capable of maintaining the probe (28) in position for measurement or detection.

32. (NEW) The closing device according to claim 31, wherein the support element is a groove (36) formed in the lateral wall of the interior housing (30).

33. (NEW) The closing device according to claim 20, wherein the probe (27) is a contact type temperature measurement probe.

34. (NEW) The closing device according to claim 20, wherein the probe (27) comprises a sensor element (28) and conductive wires (29) and in that the sensor element (28) is located inside the blocking head (18) and the conductive wires (29) pass through the shaft (17) of the closing element (16) when the probe is positioned inside the housing (30).

35. (NEW) The closing device according to claim 34, wherein the sensor or detector element (28) is located against the internal surface of the upper wall (32) of the blocking head (18) of the closing device (16) when the probe or the detector (27) is positioned inside the housing (30).

36. (NEW) The closing device according to claim 34, wherein the sensor or detector element (28) extends through a flexible casing (33), with the wires (29) passing through an interior thereof, said casing consisting of a coil of compressible spirals (34).

37. (NEW) The closing device according to claim 36, wherein the casing (33) terminates in a contact ring (35).

38. (NEW) The closing device according to claim 32, wherein the contact ring (35) and the groove (36) cooperate to maintain the probe or the detector (27) inside the housing (30) and to ensure that the sensor or detector element (28) remains pressed against the upper wall (32) of the blocking head (18) of the closing device by elastic compression of the spirals (34) on the casing (33).